



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 7B-0296054

THE APPLICATION OF RAY HERRING ESTATE TO CONSIDER UNITIZATION AND SECONDARY RECOVERY AUTHORITY FOR THE PROPOSED LAKE SAND UNIT, STEPHENS COUNTY REGULAR FIELD, STEPHENS COUNTY, TEXAS

HEARD BY: Peggy Laird – Technical Examiner
Terry Johnson – Hearings Examiner

HEARING DATE: May 15, 2015

CONFERENCE DATE: September 15, 2015

APPEARANCES:

Dale Miller
Richard Jones

REPRESENTING:

Ray Herring Estate

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Ray Herring Estate ("Herring") requests Commission authority for the unitization of the Lake Sand Unit ("Unit") in the Stephens County Regular Field ("Field"), Stephens County, Texas, and approval of secondary recovery operations on the Unit. The application is unopposed and the Examiners recommend approval of the authority for unitization and approval of the secondary recovery operations on the Unit.

Notice of the application was published in *The Breckenridge American*, a newspaper of general circulation in Stephens County, on April 11, 18, 25, and May 2, 2015. Notice of the application and notice of the hearing were served on the working interest owners, royalty interest owners, surface owner, offset operators, and overriding royalty interest owners. A unit agreement has been ratified by 100 percent of the working interest owners and is in the process of being ratified by royalty interest owners, currently with 95.2996 percent approval. There are no state owned lands in the proposed Unit.

DISCUSSION OF EVIDENCE

The proposed Unit is located in the Stephens County Regular Field at a depth of 3,656 feet to 3,670 feet. The Field rules provide for 330 feet lease line spacing, 933 feet between well spacing, and 20 acre density with 10 acre tolerance. The estimated cumulative production from the Field through February 2015 is 55,885 barrels of oil (BO), 742,458 MCF of gas well gas, 361,188 MCF of casinghead gas, and 1,049 bbl condensate

The proposed Unit includes nine wells on five adjacent tracts with a total land area of 410 acres. Tract participation for the proposed Unit is based on the summation of five factors described and weighted for each tract, as follows:

- a. primary production from the tract - 20%
- b. current production from the tract - 20%
- c. usable wellbores on the tract - 20%
- d. acreage contributed to the Unit - 20%
- e. floodable reservoir area in the Unit - 20%

The proposed Unitized Formation is a reservoir that trends in a northwest-southeast direction across five leases. Isopach map information provided by Herring indicates most of the reservoir is within the proposed Unit, and appears to be a closed system. The Unitized Formation is the subsurface portion of the Unit Area described as the Lake Sand Formation between the depths of 3,656 feet and 3,670 feet as shown on the Dual Induction Log of the Ray Herring Estate, Scarlett "D" No. D-1 Well (API No. 42-429-32897), Section 24, Block 7, T&P Survey, Stephens County, Texas.

The proposed Unit has a porosity of 10-15%, water saturation of 30-42%, and average net pay thickness of 12 feet. The initial reservoir pressure was 1,500 psi and current reservoir pressure is 450 psi. The drive mechanism for the reservoir is solution gas drive. Herring estimates that secondary recovery will produce 24,000 to 48,000 BO. The project cost is estimated to be \$118,603 with an estimated revenue of one to two million dollars.

FINDINGS OF FACT

1. Notice of hearing was sent to all working interest owners, royalty interest owners and other mineral interest owners within the Unit and all operators and unleased owners in tracts offsetting the Unit at least ten days prior to the hearing. Notice was also published in The Breckenridge American, a newspaper of general circulation in Stephens County for four consecutive weeks (April 11, 2015, April 18, 2015, April 25, 2015, and May 2, 2015).
2. The proposed Lake Sand Unit consists of 5 tracts which contain 410 acres.

3. At the time of the hearing, 100% of the working interest ownership and 95.2996% of the royalty interest ownership had signed the Unit Agreement.
4. The proposed Unitized Formation is a reservoir that trends in a northwest-southeast direction across five leases. Isopach map information provided by Herring indicates most of the reservoir is within the proposed Unit.
5. The Unitized Formation is the subsurface portion of the Unit Area described as the Lake Sand Formation between the depths of 3,656 feet and 3,670 feet as shown on the Dual Induction Log of the Ray Herring Estate, Scarlett "D" No. D-1 Well (API No. 42-429-32897), Section 24, Block 7, T&P Survey, Stephens County, Texas.
6. Herring's proposed secondary recovery operations are expected to result in the recovery of an estimated 24,000 to 48,000 BO which would otherwise go unrecovered.
7. The total cost to implement and operate the secondary recovery project is expected to be \$118,603 with an estimated revenue of one to two million dollars. The cost does not exceed the value of additional reserves to be recovered.
8. Tract participation for the proposed Unit is based on the summation of five factors described and weighted for each tract, as follows:
 - a. primary production from the tract - 20%
 - b. current production from the tract - 20%
 - c. usable wellbores on the tract - 20%
 - d. acreage contributed to the Unit - 20%
 - e. floodable reservoir area in the Unit - 20%
9. The secondary recovery project will not be successful unless the Unit Area is unitized.
10. The Unit Agreement was voluntarily executed by all parties affixing their signatures thereto and no person has been compelled or required to enter into the agreement. The Unit Agreement binds only those persons who have executed it, their heirs, successors, assigns and legal representatives. The rights of all owners of interests in the field will be protected under the operation of the Unit, regardless of whether an owner signed the Unit Agreement.

11. The owners of interests in the oil and gas under each tract of land within the area reasonably defined by development have been given an opportunity to enter into the Unit on the same yardstick basis as owners of interests in the oil and gas under the other tracts in the Unit.
12. The proposed injection program will move hydrocarbons across lease lines, and unitization is necessary in order to protect the correlative rights of the various interest owners.
13. The unitization agreement is necessary to accomplish the purposes of establishing a unit to effect secondary recovery operations for water injection and to operate cooperative facilities necessary thereto. Other available or existing methods or facilities for secondary recovery operations are inadequate for the purpose of secondary recovery.
14. The Unit Agreement does not provide, either directly or indirectly, for the cooperative refining or marketing of crude petroleum, distillate, condensate, or gas, or any by-product thereof.
15. The Unit Agreement is subject to all valid orders, rules and regulations of the Railroad Commission.
16. The Unit Agreement contains no provision regarding the field rules, nor does it limit the amount of production of oil and gas from the unitized area. The Unit Agreement does not release the operator from its obligation to reasonably develop lands or leases as a whole.
17. The Unit Agreement is a voluntary agreement entered into for the purpose of conducting secondary recovery operations.
18. The Unit Agreement does not provide for the location of wells.
19. There are no state-owned lands in the proposed Unit.
20. The Unit Agreement is in the interest of public welfare as being reasonably necessary to prevent waste and to promote conservation.
21. The reservoir described in the Unit Agreement is identified as a single reservoir for Commission purposes and is a suitable reservoir for a secondary recovery project.
22. The Unit Agreement contains only the acreage reasonably necessary to accomplish the proposed secondary recovery project.

23. Tanks on the tract will be gauged to allocate production to wells on tracts for which 100% sign-up was not achieved.

CONCLUSIONS OF LAW

1. Resolution of the subject application is a matter committed to the jurisdiction of the Railroad Commission of Texas. Tex. Nat. Res. Code § 81.051
2. All notice requirements have been satisfied. 16 Tex. Admin. Code § 1.45
3. Applicant's proposed secondary recovery project satisfies all of the requirements set out in Tex. Nat. Res. Code Ann. §§101.001-052.
4. Approval of the proposed unit agreement for secondary recovery operations is in the public interest and is necessary to prevent waste and to promote the conservation of oil or gas or both.

RECOMMENDATION

Based on the above findings of fact and conclusions of law, the Examiners recommend approval of the proposed Lake Sand Unit and secondary recovery operations.

Respectfully submitted,



Peggy Laird
Technical Examiner



Terry Johnson
Hearings Examiner